

Title (en)
PROCESS FOR THE PREPARATION OF AQUEOUS PREPARATIONS OF COMPLEXES OF PLATINUM GROUP METALS

Title (de)
VERFAHREN ZUR HERSTELLUNG WASSERHALTIGER ZUBEREITUNGEN VON KOMPLEXEN DER PLATINGRUPPENMETALLE

Title (fr)
PROCÉDÉ DE FABRICATION DE PRÉPARATIONS CONTENANT DE L'EAU À BASE DE COMPLEXES DE PLATINOÏDES

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Abstract (en)
[origin: EP2743273A1] Preparing water-containing formulation comprising complexes of platinum group metals (I), comprises reacting a hydroxo-complex, preferably hydrogen tetrahydroxo-palladate(IV) (H 2Pd(OH) 4) or hexahydroxoplatinic(IV) acid (H 2Pt(OH) 6) respectively with a neutral donor ligand, in which at least one hydroxo-group of the hydroxo-complex is replaced. The reaction is carried out in presence of a reducing agent (if the group M1 is platinum). Preparing water-containing formulation comprising complexes of platinum group metals of formula ((M1(L) a1(H 2O) b1(O 2> ->) c1(OH ->) d1(OH ->) e1(H +>) f) (I), comprises reacting a hydroxo-complex, preferably hydrogen tetrahydroxo-palladate(IV) (H 2Pd(OH) 4) or hexahydroxoplatinic(IV) acid (H 2Pt(OH) 6) respectively with a neutral donor ligand, in which at least one hydroxo-group of the hydroxo-complex is replaced. The reaction is carried out in presence of a reducing agent (if the group M1 is platinum). M1 : Pt or Pd present in +2 oxidation state (both having a coordination number 4); L : neutral monodentate- or bidentate donor ligand; a : 1-4 (for monodentate donor ligand) or 1 or 2 (for bidentate donor ligand); b, c, d : 0-3; e : 0-2; and f : 0-4. Independent claims are also included for: (1) preparing a water-containing formulation comprising complexes of platinum group metals of formula ((M2(L) a1(H 2O) b1(O 2> ->) c1(OH ->) d1(OH ->) e1(H +>) f) (II), comprising reacting a hydroxo-complex, preferably hexahydroxoplatinic(IV) acid with a neutral donor ligand, in which at least one of the hydroxo-group of the hydroxo-complex is replaced; (2) preparing a water-containing formulation comprising complexes of platinum group metals of formula ((M3(L) a1(H 2O) b1(O 2> ->) c1(OH ->) d1(OH ->) e2(H +>) f2) (III), comprising reacting a hydroxo-complex of formula (H 3M3(OH) 6) (IV) with a neutral donor ligands, in which at least one hydroxo-group of the hydroxo-complex is replaced; (3) a water-containing formulation comprising a platinum(II) complex, preferably bis(ethylenediamine)-platinum dihydroxide; (4) a water-containing formulation comprising a platinum(II) complex, preferably tetrakis(ethanolamine)-platinum dihydroxide; (5) a water-containing formulation comprising a platinum(II) complex, preferably bis(ethylenediamine)-platinum carbonate; (6) a water-containing formulation comprising a platinum(II) complex, preferably tetrakis(ethanolamine)-platinum carbonate; (7) a water-containing formulation comprising a platinum(II) complex, preferably tetrakis(ethanolamine)-platinum diacetate; and (8) a water-containing formulation comprising a platinum(II) complex, preferably tetrakis(ethanolamine)-platinum bis(bicarbonate). M2 : Pt in +4 oxidation state (having a coordination number 6); a1 : 1-6 (for monodentate donor ligand) or 1-3 (for bidentate donor ligand); b1, d1, f2 : 0-5; c1, e1 : 0-4; M3 : Rh or Ir present in +3 oxidation state (both having a coordination number 6); and e2 : 0-3.

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